



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**  
REGION II  
245 PEACHTREE CENTER AVENUE N.E., SUITE 1200  
ATLANTA, GEORGIA 30303-1200

May 11, 2023

Jamie Coleman  
Regulatory Affairs Director  
Southern Nuclear Operating Company  
7825 River Road, BIN 63031  
Waynesboro, GA 30830

**SUBJECT: VOGTLE ELECTRIC GENERATING PLANT, UNIT 4 – NRC INTEGRATED  
INSPECTION REPORT 05200026/2023001**

Dear Jamie Coleman:

On March 31, 2023, the U.S. Nuclear Regulatory Commission (NRC) completed an integrated inspection at Vogtle Electric Generating Plant (VEGP), Unit 4. The enclosed inspection report documents the inspection results, which the inspectors discussed on April 25, 2023, with Mr. G. Chick, VEGP Units 3 and 4 Executive Vice President, and other members of your staff.

The inspection examined a sample of construction activities conducted under your Combined License as it relates to safety and compliance with the Commission's rules and regulations and with the conditions of these documents. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

Based on the results of this inspection, no findings of significance were identified. This letter, its enclosure, and your response (if any) will be made available for public inspection and copying at <http://www.nrc.gov/reading-rm/adams.html> and at the NRC Public Document Room in accordance with Title 10 of the Code of Federal Regulations 2.390, "Public Inspections, Exemptions, Requests for Withholding."

Should you have any questions concerning this letter, please contact me at 404-997-4510.

J. Coleman

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Sincerely,



Signed by Covert, Nicole  
on 05/11/23

Nicole Covert, Chief  
Construction Inspection Branch 1  
Division of Construction Oversight

Docket Nos.: 5200026

License Nos: NPF-92

Enclosure: NRC Inspection Report (IR) 05200026/2023001

w/attachment: Supplemental Information

SUBJECT: VOGTLE ELECTRIC GENERATING PLANT, UNIT 4 – NRC INTEGRATED  
INSPECTION REPORT 05200026/2023001 Dated May 11, 2023

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B. Kemker, RII

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NAME	G. Khouri	R. Mathis	N. Coover		
DATE	05/09/23	05/09/23	05/11/23		

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**U.S. NUCLEAR REGULATORY COMMISSION**  
**Region II**

Docket Numbers: 5200026

License Numbers: NPF-92

Report Numbers: 05200026/2023001

Licensee: Southern Nuclear Operating Company, Inc

Facility: Vogtle Unit 4

Location: Waynesboro, GA

Inspection Dates: January 1, 2023 through March 31, 2023

Inspectors: B. Kemker, Senior Resident Inspector, Division of  
Construction Oversight (DCO)  
B. Griman, Resident Inspector, DCO  
T. Fredette, Reactor Operations Engineer, Office of  
Nuclear Reactor Regulation – Vogtle Project Office  
J. England, Senior Construction Inspector, DCO  
R. Mathis, Senior Construction Inspector, DCO  
R. Patel, Senior Construction Inspector, DCO  
A. Ponko, Senior Construction Inspector, DCO  
J. Vasquez, Construction Inspector, DCO

Approved by: Nicole Coover, Chief  
Construction Inspection Branch 1  
Division of Construction Oversight

Enclosure

## **SUMMARY OF FINDINGS**

Inspection Report (IR) 05200026/2023001; 01/01/2023 through 03/31/2023; Vogtle Unit 4, integrated inspection report.

This report covers a three-month period of inspection by resident, regional, and headquarters inspectors. The NRC's program for overseeing the safe construction of commercial nuclear power reactors is described in Inspection Manual Chapter (IMC) 2506, "Construction Reactor Oversight Process General Guidance and Basis Document."

### **A. NRC-Identified and Self Revealed Findings**

None

### **B. Licensee-Identified Violations**

None

## REPORT DETAILS

### Summary of Plant Construction Status

Unit 4: The licensee completed the structural deviation reports for the shield and the auxiliary buildings. The licensee also completed the installation of safety-related instrumentation, electrical raceways, and cables (safety and nonsafety-related), necessary to support hot functional testing.

#### 1. CONSTRUCTION REACTOR SAFETY

##### **Cornerstones: Design/Engineering, Procurement/Fabrication, Construction/Installation, Inspection/Testing**

#### IMC 2503, Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) - Related Work Inspections

##### 1A01 (Unit 4) ITAAC Number 2.1.02.01 (12) / Family 14A

###### a. Inspection Scope

The inspectors performed a direct inspection of construction activities associated with ITAAC Number 2.1.02.01 (12). The inspectors used the following NRC inspection procedures (IPs)/sections to perform this inspection:

- 65001.14-02.01 - General Installation
- 65001.A.02.04 - Review As-built Deviations/Nonconformance

The inspectors performed an inspection of the Unit 4 reactor coolant system (RCS) functional arrangement to verify the as-built system piping and components conform to the system design description in Section 2.1.2 of Appendix C of the Vogtle Unit 4 Combined License (COL), including Table 2.1.2-5 and Figure 2.1.2-1.

The inspectors performed independent field walkdowns and reviewed quality records including the Principal Closure Document (PCD), piping and instrumentation diagrams, and functional arrangement sketches to verify the RCS piping and components (including steam generators, pressurizer, reactor coolant pumps, stage 4 automatic depressurization system (ADS) valves, American Society of Mechanical Engineers (ASME) Code relief and ADS stage 1-3 lines, valves, and instruments) were physically arranged consistent with Figure 2.1.2-1 and located as identified in Table 2.1.2-5 of Appendix C of the Vogtle Unit 4 COL, such that the piping and components will support system functions described in the design description of Section 2.1.2 of Appendix C of the COL and Section 5.1.2 of the Vogtle Electric Generating Plant (VEGP), Units 3 and 4 Updated Final Safety Analysis Report (UFSAR). System installation attributes inspected included proper location, placement (such as relative elevation), quantity, physical orientation, flow direction, and alignment.

###### b. Findings

No findings were identified.

1A02 (Unit 4) ITAAC Number 2.2.02.02a (120) / Family 07F

a. Inspection Scope

The inspectors performed a direct inspection of construction activities associated with ITAAC Number 2.2.02.02a (120). The inspectors used the following NRC IPs/sections to perform this inspection:

- 65001.03 - Inspection of ITAAC-Related Installation of Piping
- 65001.03-02.06 - Nondestructive Examination
- 65001.06-02.01 - General Installation
- 65001.06-02.03 - Post Installation Activities
- 65001.07-02.05 - Problem Identification and Resolution
- 65001.B-02.03 - Welder Qualification
- 65001.B-02.05 - Inspection
- 65001.B-02.06 - Records

The inspectors reviewed welding and nondestructive examination records associated with eight field welds on the inlet and outlet sides of four gate valves (PCS-PL-V001C, PCS-PL-V002A PCS-PL-V002B, and PCS-PL-V002C) to four connecting line numbers (PCS-PL-L002, PCS-PL-L003A, PCS-PL-L003B, and PCS-PL-L005), for the passive containment cooling system (PCS) to determine if the 6-inch diameter stainless steel motor-operated valves were installed in accordance with the ASME Code, Section III, Subsection ND, for Class 3 components.

The inspectors reviewed eight weld data sheets (WDSs) for three work packages to verify quality control (QC) inspection hold points were signed and dated for acceptance of internal cleanliness, fit-up with alignment tack welds, and final visual examination in accordance with NCA-4134.10 and ND-4230.

The inspectors reviewed the entries on the WDSs to determine whether the traceability of previously reviewed stainless steel weld filler metals and welders were maintained in accordance with ND-4122 and ND-4300. In addition, the inspectors reviewed certified material test reports (CMTRs) for 1/16-inch (heat number 1395Y) and 1/8-inch (heat number 1408D) diameter ER308L bare rods to verify the chemical analysis and mechanical properties were in accordance with the ASME Code, Section III (NB-2400) and ASME Code, Section II, Part C, SFA-5.9 specification for stainless steel welding rods.

The inspectors reviewed performance qualification records of welders to verify the welders were tested and certified for welding on this portion of the PCS piping in accordance with the requirements of the ASME Code, Section IX, Article III for welding performance qualifications.

The inspectors reviewed eight liquid penetration examination reports to determine whether acceptance by American Society for Nondestructive Testing standard SNT-TC-1A Level II examiners were performed with no rejectable indications in accordance with the requirements of the ASME Code, Section III (Article ND-5000) and Section V (Article 6) for liquid penetration examination.

b. Findings

No findings were identified.

1A03 (Unit 4) ITAAC Number 3.3.00.02a.i.b (761) / Family 01F

a. Inspection Scope

The inspectors performed a direct inspection of construction activities associated with ITAAC Number 3.3.00.02a.i.b (761). The inspectors used the following NRC IPs/sections to perform this inspection:

- 65001.01 - Inspection of ITAAC-Related Foundations & Buildings
- 65001.01-02.07 - Identification and Resolution of Problem
- 65001.02-02.07 - Problem Identification and Resolution
- 65001.A - As-Built Attributes for SSCs Associated with ITAAC
- 65001.A.02.04 - Review As-built Deviations/Nonconformance

The inspectors reviewed the as-built summary report for the shield building to verify the report reconciles deviations during construction, including Table 3.3-1 wall and floor thicknesses, and concludes the as-built shield building, including the critical sections, conform to the approved design and will withstand the design basis loads specified in the Design Description without loss of structural integrity or the safety-related functions, and without impacting compliance with the radiation protection licensing basis.

The inspectors verified the as-built summary report addressed deviations to the standard plant issued after the effective date of the as-designed summary report as well as unit specific deviations.

The inspectors reviewed Tables 3-1 and 3-2 of the as-built summary report to verify the as-built strength of the structural components and connections, after reconciliation of deviations to the standard plant issued after the effective date of the as-designed summary report and site specific nonconformance and disposition reports (N&Ds) and engineering and design coordination reports (E&DCRs), was equal to or greater than the required strength.

The inspectors verified design changes were reviewed in the report to identify significant changes to structural configuration (mass, thickness, etc.) and equipment layout (mass and location) and the report concludes that the as-built design changes reviewed within the report do not impact the AP1000 seismic analysis model(s) or had already been incorporated.

Additionally, the inspectors reviewed Section 4.2 and Table 4-2 of the as-built summary report to determine if the as-built construction met the concrete wall thicknesses and radiation shielding requirements of VEGP Units 3 and 4 UFSAR Table 3.3-1. The inspectors verified any deviations from wall thickness and radiation shielding requirements of VEGP Units 3 and 4 UFSAR Table 3.3-1 were appropriately evaluated and reconciled to the approved design to demonstrate the as-built structures will withstand design basis loads without loss of structural integrity or safety functions and without impacting compliance with the radiation protection licensing basis.



b. Findings

No findings were identified.

1A04 (Unit 4) ITAAC Number 3.3.00.02a.i.c (762) / Family 01F

a. Inspection Scope

The inspectors performed a direct inspection of construction activities associated with ITAAC Number 3.3.00.02a.i.c (762). The inspectors used the following NRC IPs/sections to perform this inspection:

- 65001.01 - Inspection of ITAAC-Related Foundations & Buildings
- 65001.01-02.07 - Identification and Resolution of Problem
- 65001.02-02.07 - Problem Identification and Resolution
- 65001.A - As-Built Attributes for SSCs associated with ITAAC
- 65001.A.02.04 - Review As-built Deviations/Nonconformance

The inspectors reviewed those portions of the nuclear island basemat and auxiliary building as-built summary reports applicable to the non-radiologically controlled area of the auxiliary building to verify the reports document that the acceptance criteria of ITAAC 3.3.00.02a.i.c were met. Specifically, the inspectors reviewed the reports to verify the reports reconcile deviations during construction, including Table 3.3-1 wall and floor thicknesses, and concludes the as-built non-radiologically controlled area of the auxiliary building and supporting basemat, including the critical sections, conform to the approved design and will withstand the design basis loads specified in the Design Description without loss of structural integrity or the safety-related functions, and without impacting compliance with the radiation protection licensing basis.

The inspectors verified the as-built summary reports addressed deviations to the standard plant issued after the effective date of the as-designed summary reports as well as, unit specific deviations.

The inspectors reviewed Table 3-2 of the auxiliary building as-built summary report to verify the as-built strength of the structural components and connections, after reconciliation of deviations to the standard plant issued after the effective date of the as-designed summary report and site-specific N&Ds and E&DCRs, was equal to or greater than the required strength.

Additionally, the inspectors reviewed Tables 5-2 and 4-2 of the nuclear island basemat and auxiliary building as-built summary reports, respectively, to determine if the as-built construction met the applicable concrete thicknesses and radiation shielding requirement of VEGP Units 3 and 4 UFSAR Table 3.3-1, and any localized deviations from the VEGP Units 3 and 4 UFSAR Table 3.3-1 were appropriately evaluated and reconciled to the approved design.

b. Findings

No findings were identified

1A05 (Unit 4) ITAAC Number 3.3.00.02a.i.d (763) / Family 01F

a. Inspection Scope

The inspectors performed a direct inspection of construction activities associated with ITAAC Number 3.3.00.02a.i.d (763). The inspectors used the following NRC IPs/sections to perform this inspection:

- 65001.01 - Inspection of ITAAC-Related Foundations & Buildings
- 65001.01-02.07 - Identification and Resolution of Problem
- 65001.02-02.07 - Problem Identification and Resolution
- 65001.A - As-Built Attributes for SSCs associated with ITAAC
- 65001.A.02.04 - Review As-built Deviations/Nonconformance

The inspectors reviewed the CA20 module as-built summary report along with those portions of the nuclear island basemat and auxiliary building as-built summary reports applicable to the radiologically controlled area of the auxiliary building to verify the reports document the acceptance criteria of ITAAC 3.3.00.02a.i.d were met. Specifically, the inspectors reviewed the reports to verify the reports reconcile deviations during construction, including Table 3.3-1 wall and floor thicknesses, and concludes the as-built radiologically controlled area of the auxiliary building including the critical sections, conform to the approved design and will withstand the design basis loads specified in the Design Description without loss of structural integrity or the safety-related functions, and without impacting compliance with the radiation protection licensing basis.

The inspectors verified the as-built summary reports addressed deviations to the standard plant issued after the effective date of the as-designed summary reports as well as, unit specific deviations.

The inspectors reviewed Tables 3-2 of the CA20 module and auxiliary building as-built summary reports to verify the as-built strength of the structural components and connections, after reconciliation of deviations to the standard plant issued after the effective date of the as-designed summary reports and site specific N&Ds and E&DCRs, was equal to or greater than the required strength.

Additionally, the inspectors reviewed Tables 4-1, 5-2, and 4-2 of the CA20 module, nuclear island basemat, and auxiliary building as-built summary reports, respectively, to determine if the as-built construction met the applicable concrete thicknesses and radiation shielding requirements of VEGP Units 3 and 4 UFSAR Table 3.3-1, and any localized deviations from the VEGP Units 3 and 4 UFSAR Table 3.3-1 were appropriately evaluated and reconciled to the approved design.

b. Findings

No findings were identified.

1A06 (Unit 4) ITAAC Number 3.3.00.02h (776) / Family 11A

a. Inspection Scope

The inspectors performed a direct inspection of construction activities associated with ITAAC Number 3.3.00.02h (776). The inspectors used the following NRC IP/section to perform this inspection:

- 65001.11-02.11 - Problem Identification and Resolution

The inspectors performed an inspection to verify a report exists and concludes the flood up volume of passive core cooling system (PXS) valve/equipment room B (Room 11207) is less than 71,960 cubic feet to an elevation of 107.68 feet to satisfy the ITAAC requirements of Appendix C of the COL.

On February 6, 2023, the inspectors performed a walkdown with the licensee of the as-built containment structures and equipment in Room 11207 to verify the as-built structures and components in the room matched the design such that the inputs into the licensee's calculation for flood elevation (volume) were valid.

The inspectors reviewed the licensee's methodology, assumptions, and selection of applicable design drawings, calculations, quality assurance (QA) data package, and the PCD to verify the inspections and calculations demonstrated the as-built installed containment flood up volume met the ITAAC acceptance criteria. The inspectors reviewed inspection results from the component as-built dimensional and elevational data, and volumetric and construction survey data incorporated in the volumetric calculations and documented in Westinghouse Electric Company calculation report SV4-PXS-M3C-033 to determine if the calculated volumes met the ITAAC acceptance criteria.

b. Findings

No findings were identified.

1A07 (Unit 4) ITAAC Number 3.3.00.07c.i.a (795) / Family 09A

a. Inspection Scope

The inspectors performed a direct inspection of construction activities associated with ITAAC Number 3.3.00.07c.i.a (795). The inspectors used the following NRC IPs/sections to perform this inspection:

- 65001.09-02.01 - Physical Separation of Cables
- 65001.09-02.02 - Attributes of Electrical Cable installation
- 65001.09-02.03 – Documentation
- 65001.09-02.04 - Problem Identification and Resolution
- 65001.A.02.02 - Installation Records Review

The inspectors inspected cable pulls, terminations, and raceways in rooms located inside the non-radiologically controlled area of the auxiliary building. The rooms inspected included the following:

- 12202 - Division C Battery Room 2 (Fire Area 1202 AF 03)
- 12203 - Division C Direct Current (DC) Equipment Room (Fire Area 1202 AF 03)
- 12204 - Division B Battery Room 2 (Fire Area 1201 AF 02)
- 12211 - Corridor (Fire Area 1220 AF 01)
- 12251 - Demineralizer/Filter Access Area (Fire Area 1200 AF 01)
- 12301 - Division A Instrumentation and Controls (I&C) Room (Fire Area 1202 AF 04)
- 12302 - Division C I&C Room (Fire Area 1202 AF 03)
- 12304 - Division B I&C Penetration Room (Fire Area 1201 AF 02)
- 12305 - Division D I&C Penetration Room (Fire Area 1201 AF 03)
- 12313 - I&C / Division C Penetration Room (Fire Area 1202 AF 03)
- 12412 - Electrical Penetration Room Division A (Fire Area 1242 AF 02)
- 12504 - Upper Main Steam Isolation Valve (MSIV) Compartment B (Fire Area 1201 AF 06)
- 12701 - PCS Valve Room (Fire Zone 1270 AF 12701)

The inspectors conducted walkdowns of the cable pulls, terminations, and raceways inside the rooms to verify separation between raceways that route Class 1E cables of different divisions, and between raceways that route Class 1E cables and raceways that route non-Class 1E cables. During the walkdown, the inspectors verified the raceways and cables were identified by the appropriate color code and the division cables were routed in their respective raceways. The inspectors walked down cables installed in trays to verify cable fill design requirements were met, as applicable.

The inspectors reviewed applicable construction specifications, installation procedures, written instructions, drawings, work packages, and QC inspection reports to verify raceways that route Class 1E cables were installed in accordance with design requirements. The inspectors reviewed work packages, test and inspection records, and cable pull tickets to confirm the non-Class 1E cables needed to meet the ITAAC requirements of Appendix C of the COL were installed at the time of ITAAC verification.

For the raceways installed in these rooms, the inspectors verified the size, material, and style were as specified in design documents and work procedures. The inspectors verified raceway supports were located at points specified in approved construction drawings and maximum distances between supports were not exceeded. The inspectors verified fittings and clamps were installed according to work procedures. Additionally, the inspectors reviewed the licensee's corrective actions for issues entered into the corrective action program (CAP) to verify issues were identified, evaluated, and corrected.

b. Findings

No findings were identified.

1A08 (Unit 4) ITAAC Number 3.3.00.07c.i.b (796) / Family 09A

a. Inspection Scope

The inspectors performed a direct inspection of construction activities associated with ITAAC Number 3.3.00.07c.i.b (796). The inspectors used the following NRC IPs/sections to perform this inspection:

- 65001.09-02.01 - Physical Separation of Cables
- 65001.09-02.02 - Attributes of Electrical Cable installation
- 65001.09-02.03 - Documentation
- 65001.09-02.04 - Problem Identification and Resolution
- 65001.A.02.02 - Installation Records Review

The inspectors inspected cable pulls, terminations, and raceways in rooms located inside the radiologically controlled area of the auxiliary building (limited hazard areas). The rooms inspected were located within fire area 1200 AF 01 and included the following:

- 12154 - Auxiliary Building Sump Room
- 12254 - Spent Fuel Pool Cooling System (SFS) Penetration Room
- 12256 - Containment Isolation Valve Room
- 12452 - Containment Air Filtration System (VFS) Penetration Room
- 12454 - VFS/SFS/Primary Sampling System (PSS) Penetration Room
- 12651 - Ventilation Equipment Room

The inspectors conducted walkdowns of the cable pulls, terminations, and raceways inside the rooms to verify separation between raceways that route Class 1E cables of different divisions, and between raceways that route Class 1E cables and raceways that route non-Class 1E cables. During the walkdown, the inspectors verified the raceways and cables were identified by the appropriate color code and the division cables were routed in their respective raceways. The inspectors walked down cables installed in trays to verify cable fill design requirements were met, as applicable.

The inspectors reviewed applicable construction specifications, installation procedures, written instructions, drawings, work packages, and QC inspection reports to verify raceways that route Class 1E cables were installed in accordance with design requirements. The inspectors reviewed work packages, test and inspection records, and cable pull tickets to confirm the non-Class 1E cables needed to meet the ITAAC requirements of Appendix C of the COL were installed at the time of ITAAC verification.

For the raceways installed in these rooms, the inspectors verified the size, material, and style were as specified in design documents and work procedures. The inspectors verified raceway supports were located at points specified in approved instructions and maximum distances between supports were not exceeded. The inspectors verified fittings and clamps were installed according to work procedures. Additionally, the inspectors reviewed the licensee's corrective actions for issues entered into the CAP to verify issues were identified, evaluated, and corrected.

The inspectors reviewed ITAAC Technical Report SV4-1200-ITR-800802 and supporting documentation to determine whether the licensee's inspection results for the radiologically controlled area of the auxiliary building confirmed the following:

- Separation between raceways that route Class 1E cables of different divisions, and between raceways that route Class 1E cables and raceways that route non-Class 1E cables met separation requirements.
- Class 1E electrical and communication cables associated with only one division, and the raceways that route these cables were identified by the appropriate color code.
- Class 1E electrical and communication cables associated with only one division were routed in raceways assigned to the same division.

b. Findings

No findings were identified.

1A09 (Unit 4) ITAAC Number 3.3.00.07d.ii.a (800) / Family 09A

a. Inspection Scope

The inspectors performed a direct inspection of construction activities associated with ITAAC Number 3.3.00.07d.ii.a (800). The inspectors used the following NRC IPs/sections to perform this inspection:

- 65001.09-02.01 - Physical Separation of Cables
- 65001.09-02.02 - Attributes of Electrical Cable Installation
- 65001.09-02.03 - Documentation
- 65001.09-02.04 - Problem Identification and Resolution
- 65001.A.02.02 - Installation Records Review

The inspectors inspected cable pulls, terminations, and raceways in rooms located inside the containment building. The rooms inspected included the following:

- 11201 - Steam Generator Compartment 1
- 11206 - PXS Valve/Accumulator A
- 11300 - Maintenance Floor
- 11401 - Steam Generator 1 at Tube Sheet Elevation
- 11500 - Operating Deck
- 11601 - Steam Generator 1 Feedwater Nozzle Area 153"-0"
- 11703 - Upper ADS Valve Area

The inspectors conducted walkdowns of the cable pulls, terminations, and raceways inside the rooms to verify separation between raceways that route Class 1E cables of different divisions, and between raceways that route Class 1E cables and raceways that route non-Class 1E cables. During the walkdown, the inspectors verified the raceways and cables were identified by the appropriate color code and the division cables were routed in their respective raceways. The inspectors walked down cables installed in trays to verify cable fill design requirements were met, as applicable.

The inspectors reviewed applicable construction specifications, installation procedures, written instructions, drawings, work packages, and QC inspection reports to verify raceways that route Class 1E cables were installed in accordance with design requirements. The inspectors reviewed work packages, test and inspection records, and cable pull tickets to confirm the non-Class 1E cables needed to meet the ITAAC requirements of Appendix C of the COL were installed at the time of ITAAC verification.

For the raceways installed in these rooms, the inspectors verified the size, material, and style were as specified in design documents and work procedures. The inspectors verified raceway supports were located at points specified in approved construction drawings and maximum distances between supports were not exceeded. The inspectors verified fittings and clamps were installed according to work procedures. Additionally, the inspectors reviewed the licensee's corrective actions for issues entered into the CAP to verify issues were identified, evaluated, and corrected.

Note that Unit 4 License Amendment 187, which was issued on November 22, 2022, authorized the consolidation of the containment electrical separation ITAACs into a single ITAAC. The requirements of ITAAC 789, 792, 803, 806, and 809 have been consolidated in ITAAC 800.

b. Findings

No findings were identified.

1A10 (Unit 4) ITAAC Number 3.3.00.07d.ii.b (801) / Family 09A

a. Inspection Scope

The inspectors performed a direct inspection of construction activities associated with ITAAC Number 3.3.00.07d.ii.b (801). The inspectors used the following NRC IPs/sections to perform this inspection:

- 65001.09-02.01 - Physical Separation of Cables
- 65001.09-02.02 - Attributes of Electrical Cable installation
- 65001.09-02.03 - Documentation
- 65001.09-02.04 - Problem Identification and Resolution
- 65001.A.02.02 - Installation Records Review

The inspectors inspected cable pulls, terminations, and raceways in rooms located inside the non-radiologically controlled area of the auxiliary building. The rooms inspected include the following:

- 12202 - Division C Battery Room 2 (Fire Area 1202 AF 03)
- 12203 - Division C DC Equipment Room (Fire Area 1202 AF 03)
- 12204 - Division B Battery Room 2 (Fire Area 1201 AF 02)
- 12211 - Corridor (Fire Area 1220 AF 01)
- 12251 - Demineralizer/Filter Access Area (Fire Area 1200 AF 01)
- 12301 - Division A I&C Room (Fire Area 1202 AF 04)
- 12302 - Division C I&C Room (Fire Area 1202 AF 03)
- 12304 - Division B I&C Penetration Room (Fire Area 1201 AF 02)

- 12305 - Division D I&C Penetration Room (Fire Area 1201 AF 03)
- 12313 - I&C / Division C Penetration Room (Fire Area 1202 AF 03)
- 12412 - Electrical Penetration Room Division A (Fire Area 1242 AF 02)
- 12504 - Upper MSIV Compartment B (Fire Area 1201 AF 06)
- 12701 - PCS Valve Room (Fire Zone 1270 AF 12701)

The inspectors conducted walkdowns of the cable pulls, terminations, and raceways inside the rooms to verify separation between raceways that route Class 1E cables of different divisions, and between raceways that route Class 1E cables and raceways that route non-Class 1E cables. During the walkdown, the inspectors verified the raceways and cables were identified by the appropriate color code and the division cables were routed in their respective raceways. The inspectors walked down cables installed in trays to verify cable fill design requirements were met, as applicable.

The inspectors reviewed applicable construction specifications, installation procedures, written instructions, drawings, work packages, and QC inspection reports to verify raceways that route Class 1E cables were installed in accordance with design requirements. The inspectors reviewed work packages, test and inspection records, and cable pull tickets to confirm the non-Class 1E cables needed to meet the ITAAC requirements of Appendix C of the COL were installed at the time of ITAAC verification.

For the raceways installed in these rooms, the inspectors verified the size, material, and style were as specified in design documents and work procedures. The inspectors verified raceway supports were located at points specified in approved construction drawings and maximum distances between supports were not exceeded. The inspectors verified fittings and clamps were installed according to work procedures. Additionally, the inspectors reviewed the licensee's corrective actions for issues entered into the CAP to verify issues were identified, evaluated, and corrected.

Note that Unit 4 License Amendment 187, which was issued on November 22, 2022, authorized the consolidation of the electrical separation ITAACs for the non-radiologically controlled area of the auxiliary building into a single ITAAC. The requirements of ITAAC 790, 793, 804, 807, and 810 have been consolidated in ITAAC 801.

b. Findings

No findings were identified.

1A11 (Unit 4) ITAAC Number 3.3.00.07d.ii.c (802) / Family 09A

a. Inspection Scope

The inspectors performed a direct inspection of construction activities associated with ITAAC Number 3.3.00.07d.ii.c (802). The inspectors used the following NRC IPs/sections to perform this inspection:

- 65001.09-02.01 - Physical Separation of Cables
- 65001.09-02.02 - Attributes of Electrical Cable installation
- 65001.09-02.03 – Documentation
- 65001.09-02.04 - Problem Identification and Resolution



- 65001.A.02.02 - Installation Records Review

The inspectors inspected cable pulls, terminations, and raceways in rooms located inside the radiologically controlled area of the auxiliary building (limited hazard areas). The rooms inspected were located within fire area 1200 AF 01 and included the following:

- 12154 - Auxiliary Building Sump Room
- 12254 - SFS Penetration Room
- 12256 - Containment Isolation Valve Room
- 12452 - VFS Penetration Room
- 12454 - VFS/SFS/PSS Penetration Room
- 12651 - Ventilation Equipment Room

The inspectors conducted walkdowns of the cable pulls, terminations, and raceways inside the rooms to verify separation between raceways that route Class 1E cables of different divisions, and between raceways that route Class 1E cables and raceways that route non-Class 1E cables. During the walkdown, the inspectors verified the raceways and cables were identified by the appropriate color code and the division cables were routed in their respective raceways. The inspectors walked down cables installed in trays to verify cable fill design requirements were met, as applicable.

The inspectors reviewed applicable construction specifications, installation procedures, written instructions, drawings, work packages, and QC inspection reports to verify raceways that route Class 1E cables were installed in accordance with design requirements. The inspectors reviewed work packages, test and inspection records, and cable pull tickets to confirm the non-Class 1E cables needed to meet the ITAAC requirements of Appendix C of the COL were installed at the time of ITAAC verification.

For the raceways installed in these rooms, the inspectors verified the size, material, and style were as specified in design documents and work procedures. The inspectors verified raceway supports were located at points specified in approved construction drawings and maximum distances between supports were not exceeded. The inspectors verified fittings and clamps were installed according to work procedures. Additionally, the inspectors reviewed the licensee's corrective actions for issues entered into the CAP to verify issues were identified, evaluated, and corrected.

The inspectors reviewed ITAAC Technical Report SV4-1200-ITR-800802 and supporting documentation to determine whether the licensee's inspection results for the radiologically controlled area of the auxiliary building confirmed the following:

- Separation between raceways that route Class 1E cables of different divisions, and between raceways that route Class 1E cables and raceways that route non-Class 1E cables met separation requirements.
- Class 1E electrical and communication cables associated with only one division, and the raceways that route these cables were identified by the appropriate color code.
- Class 1E electrical and communication cables associated with only one division were routed in raceways assigned to the same division.

Note that Unit 4 License Amendment 187, issued on November 22, 2022, authorized the consolidation of the electrical separation ITAACs for the radiologically controlled area of the auxiliary building into a single ITAAC. The requirements of ITAAC 791, 794, 805, 808, and 811 have been consolidated in ITAAC 802.

b. Findings

No findings were identified.

1A12 (Unit 4) ITAAC Number 3.3.00.14 (820) / Family 17E

a. Inspection Scope

The inspectors performed a direct inspection of construction activities associated with ITAAC Number 3.3.00.14 (820). The inspectors used the following NRC IP/section to perform this inspection:

- 65001.17-02.07 - Bullet Resisting Physical Barriers

The inspectors performed a review of quality records and performed inspections of the main control room (MCR) ceiling and the west wall. Specifically, the inspectors reviewed construction specification APP-SES-Z0C-002, "CAS [Central Alarm Station] and SAS [Secondary Alarm Station] Bullet Resistant Assessment," Revision 2, to verify the concrete thickness specified for bullet resistance satisfied the requirements of Underwriters Laboratory 752 Level 4. The inspectors reviewed the construction drawings to verify the specified minimum thickness requirements on Section 4.4 of APP-SES-Z0C-002 were translated appropriately.

Specification APP-SES-Z0C-002 states the MCR slab is as robust as those of the CAS and SAS rooms. The inspectors compared the design attributes of the MCR ceiling slab and the wall on its column line to the acceptance criteria of Section 4.4 to verify the reinforced concrete design would meet the acceptance criteria. The inspectors compared the observed design attributes of the MCR ceiling slab and west wall to the description of the SAS and CAS to verify the observed civil characteristics of the MCR structures were comparable to the described civil characteristics of the SAS and CAS floor slabs.

b. Findings

No findings were identified.

## IMC 2504, Construction Inspection Program – Inspection of Construction and Operational Programs

### 1P01 Construction QA Criterion 16

- 35007-A16.04 - Inspection Requirements and Guidance
- 35007-A16.04.01 - Inspection of QA Implementing Documents
- 35007-A16.04.02 - Inspection of QA Program Implementation

#### a. Inspection Scope

The inspectors reviewed issues entered into the licensee's CAP daily to assess issues that might warrant additional follow-up inspection, to assess repetitive or long-term issues, to assess adverse performance trends, and to ensure the CAP appropriately included regulatory required nonsafety-related structures, systems, and components (SSCs). The inspectors periodically attended the licensee's CAP review meetings, held discussions with licensee and contractor personnel, and performed reviews of CAP activities during the conduct of other baseline inspection procedures. The inspectors reviewed conditions entered into the licensee's CAP to determine whether the issues were classified in accordance with the licensee's QA program and CAP implementing procedures. The inspectors reviewed corrective actions associated with conditions entered into the CAP to determine whether appropriate actions to correct the issues were identified and implemented effectively, including immediate or short-term corrective actions, in accordance with the applicable QA program requirements and Title 10 of the Code of Federal Regulations, Part 50, Appendix B, Criterion XVI. Additionally, the inspectors reviewed the corrective actions taken to determine whether they were commensurate with the significance of the associated conditions in accordance with the licensee's CAP implementing procedures. The inspectors completed reviews of CAP entry logs to verify issues from all aspects of the project, including equipment, human performance, and program issues, were being identified by the licensee and its contractors at an appropriate threshold and entered into the CAP as required by licensee's CAP implementing procedures.

#### b. Findings

No findings were identified.

### 1P02 Construction QA Criterion 16

- 35007-A16 - Appendix 16. Inspection of Criterion XVI – Corrective Action
- 35007-A16.04 - Inspection Requirements and Guidance
- 35007-A16.04.01 - Inspection of QA Implementing Documents
- 35007-A16.04.02 - Inspection of QA Program Implementation

#### a. Inspection Scope

The inspectors reviewed a sample of condition reports (CR) written between January 2023 and March 2023, for Vogtle Unit 4, related to nonconformances associated with external surfaces of the PXS and RCS piping.

The inspectors reviewed the CRs, corrective actions, and completed work orders, that the licensee performed to restore the systems back to compliance, to ensure any repairs performed were made in compliance with applicable ASME Codes. These reviews were performed to verify the nonconformances were being identified, appropriately characterized, and corrected.

b. Findings

No findings were identified.

**4. OTHER INSPECTION RESULTS**

4OA6 Meetings, Including Exit

.1 Exit Meeting

On April 25, 2023, the inspectors discussed the results of this inspection with Mr. G. Chick, VEGP Units 3 and 4 Executive Vice President, and other members of your staff. Proprietary information was reviewed during the inspection period but was not included in the inspection report.

## **SUPPLEMENTAL INFORMATION**

### **KEY POINTS OF CONTACT**

#### **Licenseses and Contractor Personnel**

C. Castell, WEC Licensing Engineer  
N. Chapman, SNC Licensing Engineer  
K. Durrwachter, SNC Licensing Engineer  
W. Garrett, SNC Licensing Manager  
D. Kettering, SNC Engineering  
S. Leighty, SNC Licensing Manager  
J. Mackiewicz, SNC Electrical ITAAC Field Engineer  
T. Mattson, SNC PI/CAP Project Director  
L. Pritchett, SNC Licensing Engineer  
K. Roberts, SNC ITAAC Manager  
G. Scott, SNC Licensing Engineer  
C. Smith, SNC Electrical ITAAC Project Manager  
S. Sorn, SNC Engineering

### **LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED**

<u>Item Number</u>	<u>Type</u>	<u>Status</u>	<u>Description</u>
None			

### **LIST OF DOCUMENTS REVIEWED**

#### **Section 1A01**

SV4-RCS-ITR-800012, "Unit 4 RCS Functional Arrangement Inspection: ITAAC 2.1.02.01 NRC Index Number 12," Revision 0  
VEGP UFSAR, Section 5.1.2, "Reactor Coolant System and Connected Systems – Design Description," Revision 7  
SV4-RCS-M6-001, "Piping and Instrumentation Diagram Reactor Coolant System," Revision 8  
SV4-RCS-M6K-FA101, "SV4-RCS-M6-001 PXS ITAAC Functional Arrangement Sketch," Revision 0

#### **Section 1A02**

##### **Work Packages (WP):**

WP No. SV4-PCS-P0W-1014056, "ASME III – Install LB Pipe & Support(s) Per ISO(s) SV4-PCS-PLW-010/SV4-PCS-P0W-01F/SV4-PCS-PLW-01H," - Revision 0  
WP No. SV4-PCS-P0W-1014058, "ASME III – Install LB Pipe & Support(s) Per ISO(s) SV4-PCS-PLW-011/SV4-PCS-PLW-013," Revision 0  
WP No. SV4-PCS-P0W-1014065, "ASME III, Install LB Pipe & Supports Per ISO(s) SV4-PCS-PLW-014/015," Revision 0

##### **Drawings:**

SV4-PCS-PLW-010, "Passive Containment Cooling System Auxiliary Building RMS 12541/12701 Supply Line B to Distribution Bucket," Revision 0

SV4-PCS-PLW-011, "Passive Containment Cooling System Auxiliary Building RMS 12541/12701 Supply Line A to Distribution Bucket," Revision 1  
SV4-PCS-PLW-013, "Passive Containment Cooling System Auxiliary Building RMS 12701 Supply Line to Distribution Bucket," Revision 0  
SV4-PCS-PLW-014, "Passive Containment Cooling System Auxiliary Building RMS 12701 Supply Line to Distribution Bucket (Common Header)," Revision 0

Field Welds (FW) & Nondestructive Examination Report (NDE) Reports:

FW No. SV4-PCS-PLW-010:

Stone & Webster (S&W) Weld Data Sheet No. SV4-PCS-PLW-010-2, for welding pipe SV4-PCS-PLW-010-2 to gate valve SV4-PCS-PL-V002B, serial No. BW 289, 11/16/2021  
MISTRAS V-21-PT-301-2954, NDE Liquid Penetrant Examination, Weld-No. SV4-PCS-PLW-010-2, 11/19/2021  
S&W Weld Data Sheet No. SV4-PCS-PLW-010-1, for welding pipe SV4-PCS-PLW-010-3 to gate valve SV4-PCS-PL-V002B, serial No. BW 289, 11/30/2021  
MISTRAS V-21-PT-301-3018, NDE Liquid Penetrant Examination, Weld-No. SV4-PCS-PLW-010-1, 12/2/2021

FW No. SV4-PCS-PLW-011:

S&W Data Sheet No. SV4-PCS-PLW-011-4, for welding pipe SV4-PCS-PLW-011-2 to valve SV4-PCS-PL-V002A, serial No. BW 459, 11/19/2021  
MISTRAS V-21-PT-301-2891, NDE Liquid Penetrant Examination, Weld-No SV4-PCS-PLW-011-4, 11/19/2021  
S&W Weld Data Sheet No. SV4-PCS-PLW-011-3, for welding pipe SV4-PCS-PLW-011-3 to valve SV4-PCS-PL-V002A, serial No. BW 459, 11/19/2021  
MISTRAS V-21-PT-301-2953, NDE Liquid Penetrant Examination, Weld-No SV4-PCS-PLW-011-3, 11/19/2021

FW No. SV4-PCS-PLW-013:

S&W Data Sheet No. SV4-PCS-PLW-013-4, for welding pipe SV4-PCS-PLW-013-1 to valve SV4-PCS-PL-V001C, serial No. BW 374, 12/9/2021  
MISTAS V-21-PT-301-3038, NDE Liquid Penetrant Examination, Weld-No. SV4-PCS-PLW-013-4, 12/9/2021  
S&W Weld Data Sheet No. SV4-PCS-PLW-013-5, for welding pipe SV4-PCS-PLW-013-2 to valve SV4-PCS-PL-V001C, serial No. BW374, 11/30/2021  
MISTRAS V-21-PT-301-3016, NDE Liquid Penetrant Examination, Weld-No. SV4-PCS-PLW-013-5, 12/7/2021  
S&W Data Sheet No. SV4-PCS-PLW-013-6, for welding pipe SV4-PCS-PLW-013-2 to valve SV4-PCS-PL-V002C, serial No. BW 276, 12/7/2021  
MISTRAS V-21-PT-301-3038, NDE Liquid Penetrant Examination, Weld-No. SV4-PCS-PLW-013-6, 12/9/2021

FW No. SV4-PCS-PLW-014:

S&W Weld Data Sheet No. SV4-PCS-PLW-014-5, for welding pipe SV4-PCS-PLW-014-1 to gate valve SV4-PCS-PL-V002C, serial No. BW 276, 11/15/2021

MISTRAS V-21-PT-301-3021, NDE Liquid Penetrant Examination, Weld-No. SV4-PCS-PLW-014-5, 12/2/2021

Miscellaneous:

Lincoln Electric Certified Material Test Report (CMTR) for 1/16" by 18" ER308/308L bare rod, heat-no. 1395Y, 12/01/2011

Lincoln Electric CMTR for 1/8" by 18" ER308/308L bare rod, heat-no. 1408D, 04/24/2019

S&W Welder Performance Qualification Record (WPQR) for welder DLA, 07/14/2021

S&W WPQR for welder JMT, 07/23/2021

S&W WPQR for welder JAC, 07/30/2021

**Section 1A03**

SV4-1208-GCR-001, "Vogtle Unit #4 As-Built Summary Report: Shield Building," Revision 0

**Section 1A04**

SV4-1010-GCR-001, "Vogtle Unit #4 As-Built Summary Report: Nuclear Island Basemat," Revision 1

SV4-1200-GCR-003, "Vogtle Unit #4 As-Built Summary Report: Nuclear Island Auxiliary Building," Revision 0

**Section 1A05**

SV4-1010-GCR-001, "Vogtle Unit #4 As-Built Summary Report: Nuclear Island Basemat," Revision 1

SV4-1200-GCR-001, "Vogtle Unit #4 As-Built Summary Report: Nuclear Island Auxiliary Building," Revision 0

SV4-CA20-GCR-001, "Vogtle Unit #4 As-Built Summary Report: CA20 Module," Revision 0

**Section 1A06**

SV4-PXS-M3C-033, "Vogtle Unit 3 As-Built Containment Flood Up Volume Calculation," Revision 0

SV4-MT3J-VQQ-001, "Data Package and Quality Release for Vogtle MT3J," Revision 1

**Section 1A07**

Rooms: 12202 (Division C Battery Room 2), 12203 (Division C DC Equipment Room), 12204 (Division B Battery Room 2), 12211 (Corridor), 12251 (Demineralizer/Filter Access Area), 12301 (Division A I&C Room), 12302 (Division C I&C Room), 12304 (Division B I&C Penetration Room), 12305 (Division D I&C Penetration Room), 12313 (I&C / Division C Penetration Room), 12412 (Electrical Penetration Room Division A), 12504 (Upper MSIV Compartment B), 12701 (PCS Valve Room)

Work Packages:

SV4-PMS-EWW-1172848, "U4 - AUX - REWORK EQUIPMENT, CONDUIT, AND CABLES TO RESOLVE ISSUES IN TE 60047683," Revision 0

SV4-1242-E0W-1173008, "U4 AUX, INSTALL PULL BOXES / SUPPORTS / CONDUITS and REPAIR DAMAGED CABLES, PER IWA ESR-50166691, ELEV. 117'-6", AREA 2, ROOM 12412," Revision 0

SV4-1254-ERW-1114377, "U4 - AUX - Install Scheduled Conduit - EL 145'9 – Room 12651 - Area 4," Revision 0

Procedures:

APP-G1-V8-001, "AP1000 Electrical Installation Specification," Revision 12

Bechtel 26139-000-4MP-T81C-N3303, "Cable Installation," Revision 21

Bechtel 26139-000-4MP-T81C-N3304, "Cable Terminations," Revision 19

Pull Tickets:

SV4-PCS-EW-100103AZC[PT], "600V 1-TWSPR 16 AWG (Z)," Revision 3

SV4-PCS-EW-100103BZC[PT], "600V 1-TWSPR 16 AWG (Z)," Revision 3

SV4-PCS-EW-100105AZC[PT], "600V 1-TWSPR 16 AWG (Z)," Revision 3

SV4-RCS-EW-PLV004CLZC[PT], "600V 1-TWSPR 16 AWG (Z)," Revision 5

SV4-PCS-EW-100105BZB[PT], "600V 1-TWSPR 16 AWG (Z)," Revision 2

SV4-SGS-EW-PLV086AJZB[PT], "600V 1-TWSPR 16 AWG (Z)," Revision 3

SV4-SGS-EW-PLV086AKZB[PT], "600V 1-TWSPR 16 AWG (Z)," Revision 3

SV4-SGS-EW-PLV067AMZB[PT], "600V 1-TWSPR 16 AWG (Z)," Revision 3

SV4-SGS-EW-PLV067ANZB[PT], "600V 1-TWSPR 16 AWG (Z)," Revision 3

SV4-SGS-EW-PLV027AMZB[PT], "600V 1-TWSPR 16 AWG (Z)," Revision 3

SV4-SGS-EW-PLV027ANZB[PT], "600V 1-TWSPR 16 AWG (Z)," Revision 3

SV4-SGS-EW-PLV057ARZB[PT], "600V 1-TWSPR 16 AWG (Z)," Revision 3

SV4-PCS-EW-PLV001CAXC[PT], "600V 4/C-2 AWG + 1/C-8 AWG W/ OVERALL SHIELD," Revision 1

SV4-PCS-EW-PLV002CAXC[PT], "600V 4/C-2 AWG + 1/C-8 AWG W/ OVERALL SHIELD," Revision 3

SV4-PCS-EW-PLV002AHYA[PT], "600V 5/C-14 AWG," Revision 2

SV4-PCS-EW-PLV002BAXB[PT], "600V 4/C-2 AWG + 1/C-8 AWG W/ OVERALL SHIELD," Revision 3

SV4-PCS-EW-PLV001CAXC[PT], "600V 4/C-2 AWG + 1/C-8 AWG W/ OVERALL SHIELD," Revision 1

SV4-PCS-EW-PLV002CAXC[PT], "600V 4/C-2 AWG + 1/C-8 AWG W/ OVERALL SHIELD," Revision 3

SV4-PCS-EW-PLV002AHYA[PT], "600V 5/C-14 AWG," Revision 2

SV4-PCS-EW-PLV002AAXA[PT], "600V 4/C-2 AWG + 1/C-8 AWG W/ OVERALL SHIELD," Revision 2

SV4-PCS-EW-100103AZC[PT], "600V 1-TWSPR 16 AWG (Z)," Revision 3

SV4-PCS-EW-100103BZC[PT], "600V 1-TWSPR 16 AWG (Z)," Revision 3

Inspection Records:



SV4-PCS-EWW-1117612, "26139-000-4MP-T81C-N3303, Attachment A – Cable Inspection Record: Cable IDs SV4-PCS-EW-100103AZC, SV4-PCS-EW-100103BZC, and SV4-PCS-EW-100105AZC," 12/15/2022

SV4-PCS-EWW-1117612, "26139-000-4MP-T81C-N3303, Attachment A – Cable Inspection Record: Cable IDs SV4-PCS-EW-100105BZB," 12/15/2022

SV4-PCS-EWW-1135461, "26139-000-4MP-T81C-N3303, Attachment A – Cable Inspection Record: Cable IDs SV4-SGS-EW-PLV086AJZB, SV4-SGS-EW-PLV086AKZB, SV4-SGS-EW-PLV067AMZB, SV4-SGS-EW-PLV067ANZB, SV4-SGS-EW-PLV027AMZB, SV4-SGS-EW-PLV027ANZB, SV4-SGS-EW-PLV057ARZB, SV4-SGS-EW-PLV057ASZB, SV4-SGS-EW-PLV040ARZB, and SV4-SGS-EW-PLV040ASZB," 12/19/2022

SV4-PCS-EWW-1117612, "26139-000-4MP-T81C-N3303, Attachment A – Cable Inspection Record: Cable IDs SV4-PCS-EW-PLV001CAXC and SV4-PCS-EW-PLV002CAXC," 12/22/2022

SV4-PCS-EWW-1117612, "26139-000-4MP-T81C-N3303, Attachment A – Cable Inspection Record: Cable IDs SV4-PCS-EW-PLV002AHYA," 12/22/2022

SV4-PCS-EWW-1117612, "26139-000-4MP-T81C-N3303, Attachment A – Cable Inspection Record: Cable IDs SV4-PCS-EW-PLV002BAXB" 12/22/2022

SV4-PCS-EWW-1117612, "26139-000-4MP-T81C-N3303, Attachment A – Cable Inspection Record: Cable IDs SV4-PCS-EW-100103AZC, SV4-PCS-EW-100103BZC, and SV4-PCS-EW-100105AZC," 12/15/2022

SV4-PCS-EWW-1117612, "26139-000-4MP-T81C-N3303, Attachment A – Cable Inspection Record: Cable IDs SV4-PCS-EW-PLV001CAXC, SV4-PCS-EW-PLV002AHYA, SV4-PCS-EW-PLV002CAXC, and SV4-PCS-EW-PLV002AAXA," 12/22/2022

#### Drawings:

SV4-1222-SH-200, "AUXILIARY BUILDING AREA 2 EL. 82'-6" RACEWAY SUPPORTS PLAN VIEW (SHEET 1)," Revision 8

SV4-1222-SH-244, "AUXILIARY BUILDING AREA 2 EL. 82'-6" RACEWAY SUPPORTS DETAILS (SHEET 25)," Revision 1

SV4-1221-ER-601, "AUXILIARY BUILDING AREA 1 EL. 82'-6" CONDUIT SUPPORTS PLAN VIEW (SHEET 1)," Revision 4

SV4-1222-ER-601, "AUXILIARY BUILDING AREA 2 EL. 82'-6" CONDUIT SUPPORTS PLAN VIEW (SHEET 1)," Revision 4

SV4-1231-ER-601, "AUXILIARY BUILDING AREA 1 EL. 100'-0" CONDUIT SUPPORTS PLAN VIEW (SHEET 1)," Revision 7

SV4-1222-ER-629, "AUXILIARY BUILDING AREA 2 EL. 82'-6" RACEWAY SUPPORTS DETAILS (SHEET 19)," Revision 0

SV4-1221-SH-215, "AUXILIARY BUILDING AREA 1 EL. 82'-6" RACEWAY SUPPORTS DETAILS (SHEET 6)," Revision 4

SV4-1231-ER-635, "AUXILIARY BUILDING AREA 1 EL. 100'-0" CONDUIT SUPPORTS DETAILS (SHEET 25)," Revision 3

SV4-1221-ER-613, "AUXILIARY BUILDING AREA 1 EL. 82'-6" CONDUIT SUPPORTS DETAILS (SHEET 3)," Revision 3

SV4-1231-ER-613, "AUXILIARY BUILDING AREA 1 EL. 100'-0" CONDUIT SUPPORTS DETAILS (SHEET 3)," Revision 3

SV4-1231-ER-611, "AUXILIARY BUILDING AREA 1 EL. 100'-0" CONDUIT SUPPORTS DETAILS (SHEET 1)," Revision 3

SV4-1231-ER-617, "AUXILIARY BUILDING AREA 1 EL. 100'-0" CONDUIT SUPPORTS DETAILS (SHEET 7)," Revision 5  
SV4-1231-ER-656, "AUXILIARY BUILDING AREA 1 EL. 100'-0" CONDUIT SUPPORTS DETAILS (SHEET 46)," Revision 1

E&DCRs:

APP-ECS-GEF-083, "Support Unistrut Welding – Containment Elevation 4," Revision 0  
APP-ECS-GEF-092, "Support Unistrut Welding – Containment Elevation 5," Revision 0  
SV4-EC-GEF-000265, "Cable Tray Clamp Installation Requirements (ESR 50158391)," Revision 0

N&Ds:

SV3-1150-GNR-000031, "Correct unsupported conduit lengths (ESR 50071749)," Revision 0  
SV4-1150-GNR-000011, "Correct unsupported conduit lengths (ESR 50111999)," Revision 0

**Section 1A08**

Rooms: 12154 (Auxiliary Building Sump Room), 12254 (SFS Penetration Room), 12256 (Containment Isolation Valve Room), 12452 (VFS Penetration Room), 12454 (VFS/SFS/PSS Penetration Room), 12651 (Ventilation Equipment Room)

Drawings:

APP-1214-ER-101, "Auxiliary Building Area 4 Conduit Arrangement Plan at Elevation 66' 6"," Revision 12  
APP-1224-ER-101, "Auxiliary Building Area 4 Conduit Arrangement Plan at Elevation 82' 6"," Revision 13  
APP-1234-ER-001, "Auxiliary Building Area 4 Cable Tray Arrangement Plan at Elevation 100' 0"," Revision 6  
APP-1234-ER-102, "Auxiliary Building Area 4 Class 1E Conduit Arrangement Plan at Elevation 100' 0"," Revision 8  
APP-1244-ER-101, "Auxiliary Building Area 4 Class 1E Conduit Arrangement Plan at Elevation 117' 6"," Revision 10  
APP-1244-ER-102, "Auxiliary Building Area 4 Class 1E Conduit Arrangement Plan at Elevation 117' 6" Sections and Details (Sheet 1)," Revision 10  
APP-1244-ER-002, "Auxiliary Building Area 4 Class 1E Cable Tray Arrangement Plan at Elevation 117' 6"," Revision 7  
APP-1244-ER-003, "Auxiliary Building Area 4 Class 1E Cable Tray Layout at Elevation 117' 6" Sections and Details," Revision 6

Work Packages:

SV4-1224-ERW-1006524, "U4 - AUX - INSTALL 1E CONDUITS, EL. 82'-6", RM 12254, AREA 4," Revision 0  
SV4-1234-ERW-1118233, "U4 - AUX - Install 1E Scheduled Conduit - EL 100'0"- Rm 12251, 12254, 12256, 12354 - Area 4," Revision 2  
SV4-1234-ERW-1170773, "U4-AUX-REWORK/RELABEL CONDUITS, CABLE TRAYS AND SUPPORTS AS NEEDED TO CORRECT ISSUES WITH CRs 50161200 & 50161201, RM. 12254 & 12256, EL 100'-0", AREA 4," Revision 0

SV4-1234-ERW-1170775, "U4 AUX, REWORK/REINSPECT TO RESOLVE ELECTRICAL ISSUES IN ROOM 12354 & 12365. CR 50161406 AND 50161410," Revision 0  
SV4-1244-ERW-1170921, "U4-AUX-INSTALL 1E CABLE TRAY COVERS AND ASSOCIATED HARDWARE, RM. 12452 & 12454 EL. 117'-6", AREA 4," Revision 0  
SV4-1244-ERW-1114546, "U4-AUX-INSTALL 1E CONDUITS AND PULL BOXES- EL 117'-6" - ROOM 12452, 12454 AREA 4," Revision 0

Procedures:

APP-G1-V8-001, "AP1000 Electrical Installation Specification," Revision 12  
Bechtel 26139-000-4MP-T81C-N3303, "Cable Installation," Revision 21  
Bechtel 26139-000-4MP-T81C-N3304, "Cable Terminations," Revision 19

Pull Tickets:

SV4-VFS-EW-PLV800AJYA[PT], "600V SAFETY DC MOV CONTROL CABLE PIGTAIL," Revision 1

Miscellaneous:

CR 50171620, Unit 4 Room 12452 has a Missing Screw in Condulet Cover identified during NRC Inspection, 3/21/2023  
SV4-1200-ITR-800802, "ITAAC Technical Report Unit 4 Electrical Report for ITAAC 796 and ITAAC 802, Radiologically Controlled Area of the Auxiliary Building," Revision 0

**Section 1A09**

Rooms: 11201 (Steam Generator Compartment 1), 11206 (PXS Valve/Accumulator A), 11300 (Maintenance Floor), 11401 (Steam Generator 1 at Tube Sheet Elevation), 11500 (Operating Deck), 11601 (Steam Generator 1 Feedwater Nozzle Area 153"-0"), 11703 (Upper ADS Valve Area)

Work Packages:

SV4-VFS-EWW-1140467, "U4 CT TO AUX TEST & TERMINATE VFS-2 CABLES /INSTALL VENDOR SUPPLIED PIGTAIL AND UNSCHEDULED RACEWAY RELATED TO SV4-VFS-PLV004, SV4-VFS-PL-V009 AND ASSOCIATED EQUIPMENT ROOMS 11300, 11306, 11400, 12305, 12421," Revision 0  
SV4-RCS-EWW-1106292, "U4 CB TO AUX SYS RCS-1, TERMINATE CABLES / TEST THRU EPA / INSTALL VENDOR SUPPLIED PIGTAIL AND SCHEDULED RACEWAY RELATED TO SV4-RCS-PLV004A, SV4-RCS-PL-V004C, SV4-RCS-PL-V004D AND ASSOCIATED EQUIPMENT ROOMS 11301, 11300, 11302, 11306, 11400, 11401, 11402," Revision 1  
SV4-RCS-EWW-1170589, "U4 CONTAINMENT, DE-TERM AND RE-TERM CABLES TO REWORK JUNCTION BOXES IAW ESR-50160495, ROOMS 11703 & 11400," Revision 3  
SV4-1100-ERW-1170164, "U4 CT - INSTALL CABLE TRAY COVERS & ASSOCIATED HARDWARE FOR SAFETY RELATED DIVISION A CABLE TRAYS - ALL EL.- AREA'S 2 & 3," Revision 1

SV4-PXS-EWW-1139779, "U4 CONTAINMENT TO AUX SYS PXS-1, TERMINATE CABLES / INSTALL VENDOR SUPPLIED PIGTAIL RELATED TO SV4-PXS-JE-LT050, SV4-PXS-JE-LT051, SV4-PXS-JE-LT052 AND ASSOCIATED EQUIPMENT," Revision 2  
SV4-1140-EFW-1165821, "U4 CT - PULL / TERM ASSOCIATED COMMUNICATION CABLE ON EF-001 / 002 SERIES DRAWINGS IN CONTAINMENT BUILDING, EL 118'6", AREAS 1-4," Revision 0

Pull Tickets:

SV4-RCS-EW-PLV001APZA[PT], "600V 1-TWSPR 16 AWG (Z)," Revision 1  
SV4-PXS-EW-PLV015APZB[PT], "600V 1-TWSPR 16 AWG (Z)," Revision 3

Drawings:

APP-VFS-E5-PLV800A03, "COMBINED WIRING DIAGRAM APP-VFS-PL-V800A VACUUM RELIEF VALVE SHEET 3 OF 4," Revision 2  
APP-RCS-E5-PLV004C01, "COMBINED WIRING DIAGRAM APP-RCS-PL-V004C CLASS 1E SQUIB VALVE SH 1 OF 2," Revision 3  
APP-PXS-E5-PLV015A01, "COMBINED WIRING DIAGRAM APP-PXS-PL-V015A CMT A DISCHARGE ISOLATION VALVE SH 1 OF 2," Revision 2  
APP-RCS-E5-PLV001A03, "COMBINED WIRING DIAGRAM APP-RCS-PL-V001A FIRST STAGE ADS VALVE A SH 3 OF 4," Revision 4  
SV4-1140-ER-606, "CABLE TRAY SUPPORT FABRICATION DRAWING," Revision 1  
SV4-1140-ER-909, "CABLE TRAY SUPPORT FABRICATION DRAWING," Revision 0  
SV4-1144-ER-501, "CONTAINMENT BUILDING AREA 4 EL 118'-6," Revision 3  
SV4-1144-ER-502, "CONTAINMENT BUILDING AREA 4 EL 118'-6," Revision 4  
SV4-1150-ER-537, "CONDUIT SUPPORT FABRICATION DRAWING," Revision 0  
SV4-1150-ER-871, "CONDUIT SUPPORT FABRICATION DRAWING," Revision 1  
SV4-1150-ER-936, "CONDUIT SUPPORT FABRICATION DRAWING," Revision 1  
SV4-1150-ER-938, "CONDUIT SUPPORT FABRICATION DRAWING," Revision 1  
SV4-1152-ER-601, "CONTAINMENT BUILDING AREA 2 EL 135'-3," Revision 5  
SV4-1152-ER-605, "CONTAINMENT BUILDING AREA 2 EL 135'-3," Revision 4

E&DCRs:

APP-ECS-GEF-083, "Support Unistrut Welding – Containment Elevation 4," Revision 0  
APP-ECS-GEF-092, "Support Unistrut Welding – Containment Elevation 5," Revision 0  
SV4-EC-GEF-000265, "Cable Tray Clamp Installation Requirements (ESR 50158391)," Revision 0

N&Ds:

SV3-1150-GNR-000031, "Correct unsupported conduit lengths (ESR 50071749)," Revision 0  
SV4-1150-GNR-000011, "Correct unsupported conduit lengths (ESR 50111999)," Revision 0

Procedures:

APP-G1-V8-001, "AP1000 Electrical Installation Specification," Revision 12  
26139-000-4MP-T81C-N3303, "Cable Installation," Revision 21  
26139-000-4MP-T81C-N3304, "Cable Terminations," Revision 19

## **Section 1A10**

Rooms: 12202 (Division C Battery Room 2), 12203 (Division C DC Equipment Room), 12204 (Division B Battery Room 2), 12211 (Corridor), 12251 (Demineralizer/Filter Access Area), 12301 (Division A I&C Room), 12302 (Division C I&C Room), 12304 (Division B I&C Penetration Room), 12305 (Division D I&C Penetration Room), 12313 (I&C / Division C Penetration Room), 12412 (Electrical Penetration Room Division A), 12504 (Upper MSIV Compartment B), 12701 (PCS Valve Room)

### Work Packages:

SV4-PMS-EWW-1172848, "U4 - AUX - REWORK EQUIPMENT, CONDUIT, AND CABLES TO RESOLVE ISSUES IN TE 60047683," Revision 0

SV4-1242-E0W-1173008, "U4 AUX, INSTALL PULL BOXES / SUPPORTS / CONDUITS and REPAIR DAMAGED CABLES, PER IWA ESR-50166691, ELEV. 117'-6", AREA 2, ROOM 12412," Revision 0

SV4-1254-ERW-1114377, "U4 - AUX - Install Scheduled Conduit - EL 145'9 – Room 12651 - Area 4," Revision 0

### Procedures:

APP-G1-V8-001, "AP1000 Electrical Installation Specification," Revision 12

Bechtel 26139-000-4MP-T81C-N3303, "Cable Installation," Revision 21

Bechtel 26139-000-4MP-T81C-N3304, "Cable Terminations," Revision 19

### Pull Tickets:

SV4-PCS-EW-100103AZC[PT], "600V 1-TWSPR 16 AWG (Z)," Revision 3

SV4-PCS-EW-100103BZC[PT], "600V 1-TWSPR 16 AWG (Z)," Revision 3

SV4-PCS-EW-100105AZC[PT], "600V 1-TWSPR 16 AWG (Z)," Revision 3

SV4-RCS-EW-PLV004CLZC[PT], "600V 1-TWSPR 16 AWG (Z)," Revision 5

SV4-PCS-EW-100105BZB[PT], "600V 1-TWSPR 16 AWG (Z)," Revision 2

SV4-SGS-EW-PLV086AJZB[PT], "600V 1-TWSPR 16 AWG (Z)," Revision 3

SV4-SGS-EW-PLV086AKZB[PT], "600V 1-TWSPR 16 AWG (Z)," Revision 3

SV4-SGS-EW-PLV067AMZB[PT], "600V 1-TWSPR 16 AWG (Z)," Revision 3

SV4-SGS-EW-PLV067ANZB[PT], "600V 1-TWSPR 16 AWG (Z)," Revision 3

SV4-SGS-EW-PLV027AMZB[PT], "600V 1-TWSPR 16 AWG (Z)," Revision 3

SV4-SGS-EW-PLV027ANZB[PT], "600V 1-TWSPR 16 AWG (Z)," Revision 3

SV4-SGS-EW-PLV057ARZB[PT], "600V 1-TWSPR 16 AWG (Z)," Revision 3

SV4-PCS-EW-PLV001CAXC[PT], "600V 4/C-2 AWG + 1/C-8 AWG W/ OVERALL SHIELD," Revision 1

SV4-PCS-EW-PLV002CAXC[PT], "600V 4/C-2 AWG + 1/C-8 AWG W/ OVERALL SHIELD," Revision 3

SV4-PCS-EW-PLV002AHYA[PT], "600V 5/C-14 AWG," Revision 2

SV4-PCS-EW-PLV002BAXB[PT], "600V 4/C-2 AWG + 1/C-8 AWG W/ OVERALL SHIELD," Revision 3

SV4-PCS-EW-PLV001CAXC[PT], "600V 4/C-2 AWG + 1/C-8 AWG W/ OVERALL SHIELD,"

Revision 1

SV4-PCS-EW-PLV002CAXC[PT], "600V 4/C-2 AWG + 1/C-8 AWG W/ OVERALL SHIELD,"

Revision 3

SV4-PCS-EW-PLV002AHYA[PT], "600V 5/C-14 AWG," Revision 2

SV4-PCS-EW-PLV002AAXA[PT], "600V 4/C-2 AWG + 1/C-8 AWG W/ OVERALL SHIELD,"

Revision 2

SV4-PCS-EW-100103AZC[PT], "600V 1-TWSPR 16 AWG (Z)," Revision 3

SV4-PCS-EW-100103BZC[PT], "600V 1-TWSPR 16 AWG (Z)," Revision 3

#### Inspection Records:

SV4-PCS-EWW-1117612, "26139-000-4MP-T81C-N3303, Attachment A – Cable Inspection Record: Cable IDs SV4-PCS-EW-100103AZC, SV4-PCS-EW-100103BZC, and SV4-PCS-EW-100105AZC," 12/15/2022

SV4-PCS-EWW-1117612, "26139-000-4MP-T81C-N3303, Attachment A – Cable Inspection Record: Cable IDs SV4-PCS-EW-100105BZB," 12/15/2022

SV4-PCS-EWW-1135461, "26139-000-4MP-T81C-N3303, Attachment A – Cable Inspection Record: Cable IDs SV4-SGS-EW-PLV086AJZB, SV4-SGS-EW-PLV086AKZB, SV4-SGS-EW-PLV067AMZB, SV4-SGS-EW-PLV067ANZB, SV4-SGS-EW-PLV027AMZB, SV4-SGS-EW-PLV027ANZB, SV4-SGS-EW-PLV057ARZB, SV4-SGS-EW-PLV057ASZB, SV4-SGS-EW-PLV040ARZB, and SV4-SGS-EW-PLV040ASZB," 12/19/2022

SV4-PCS-EWW-1117612, "26139-000-4MP-T81C-N3303, Attachment A – Cable Inspection Record: Cable IDs SV4-PCS-EW-PLV001CAXC and SV4-PCS-EW-PLV002CAXC," 12/22/2022

SV4-PCS-EWW-1117612, "26139-000-4MP-T81C-N3303, Attachment A – Cable Inspection Record: Cable IDs SV4-PCS-EW-PLV002AHYA," 12/22/2022

SV4-PCS-EWW-1117612, "26139-000-4MP-T81C-N3303, Attachment A – Cable Inspection Record: Cable IDs SV4-PCS-EW-PLV002BAXB" 12/22/2022

SV4-PCS-EWW-1117612, "26139-000-4MP-T81C-N3303, Attachment A – Cable Inspection Record: Cable IDs SV4-PCS-EW-100103AZC, SV4-PCS-EW-100103BZC, and SV4-PCS-EW-100105AZC," 12/15/2022

SV4-PCS-EWW-1117612, "26139-000-4MP-T81C-N3303, Attachment A – Cable Inspection Record: Cable IDs SV4-PCS-EW-PLV001CAXC, SV4-PCS-EW-PLV002AHYA, SV4-PCS-EW-PLV002CAXC, and SV4-PCS-EW-PLV002AAXA," 12/22/2022

#### Drawings:

SV4-1222-SH-200, "AUXILIARY BUILDING AREA 2 EL. 82'-6" RACEWAY SUPPORTS PLAN VIEW (SHEET 1)," Revision 8

SV4-1222-SH-244, "AUXILIARY BUILDING AREA 2 EL. 82'-6" RACEWAY SUPPORTS DETAILS (SHEET 25)," Revision 1

SV4-1221-ER-601, "AUXILIARY BUILDING AREA 1 EL. 82'-6" CONDUIT SUPPORTS PLAN VIEW (SHEET 1)," Revision 4

SV4-1222-ER-601, "AUXILIARY BUILDING AREA 2 EL. 82'-6" CONDUIT SUPPORTS PLAN VIEW (SHEET 1)," Revision 4

SV4-1231-ER-601, "AUXILIARY BUILDING AREA 1 EL. 100'-0" CONDUIT SUPPORTS PLAN VIEW (SHEET 1)," Revision 7

SV4-1222-ER-629, "AUXILIARY BUILDING AREA 2 EL. 82'-6" RACEWAY SUPPORTS DETAILS (SHEET 19)," Revision 0

SV4-1221-SH-215, "AUXILIARY BUILDING AREA 1 EL. 82'-6" RACEWAY SUPPORTS DETAILS (SHEET 6)," Revision 4  
SV4-1231-ER-635, "AUXILIARY BUILDING AREA 1 EL. 100'-0" CONDUIT SUPPORTS DETAILS (SHEET 25)," Revision 3  
SV4-1221-ER-613, "AUXILIARY BUILDING AREA 1 EL. 82'-6" CONDUIT SUPPORTS DETAILS (SHEET 3)," Revision 3  
SV4-1231-ER-613, "AUXILIARY BUILDING AREA 1 EL. 100'-0" CONDUIT SUPPORTS DETAILS (SHEET 3)," Revision 3  
SV4-1231-ER-611, "AUXILIARY BUILDING AREA 1 EL. 100'-0" CONDUIT SUPPORTS DETAILS (SHEET 1)," Revision 3  
SV4-1231-ER-617, "AUXILIARY BUILDING AREA 1 EL. 100'-0" CONDUIT SUPPORTS DETAILS (SHEET 7)," Revision 5  
SV4-1231-ER-656, "AUXILIARY BUILDING AREA 1 EL. 100'-0" CONDUIT SUPPORTS DETAILS (SHEET 46)," Revision 1

E&DCRs:

APP-ECS-GEF-083, "Support Unistrut Welding – Containment Elevation 4," Revision 0  
APP-ECS-GEF-092, "Support Unistrut Welding – Containment Elevation 5," Revision 0  
SV4-EC-GEF-000265, "Cable Tray Clamp Installation Requirements (ESR 50158391)," Revision 0

N&Ds:

SV3-1150-GNR-000031, "Correct unsupported conduit lengths (ESR 50071749)," Revision 0  
SV4-1150-GNR-000011, "Correct unsupported conduit lengths (ESR 50111999)," Revision 0

**Section 1A11**

Rooms: 12154 (Auxiliary Building Sump Room), 12254 (SFS Penetration Room), 12256 (Containment Isolation Valve Room), 12452 (VFS Penetration Room), 12454 (VFS/SFS/PSS Penetration Room), 12651 (Ventilation Equipment Room)

Drawings:

APP-1214-ER-101, "Auxiliary Building Area 4 Conduit Arrangement Plan at Elevation 66' 6"," Revision 12  
APP-1224-ER-101, "Auxiliary Building Area 4 Conduit Arrangement Plan at Elevation 82' 6"," Revision 13  
APP-1234-ER-001, "Auxiliary Building Area 4 Cable Tray Arrangement Plan at Elevation 100' 0"," Revision 6  
APP-1234-ER-102, "Auxiliary Building Area 4 Class 1E Conduit Arrangement Plan at Elevation 100' 0"," Revision 8  
APP-1244-ER-101, "Auxiliary Building Area 4 Class 1E Conduit Arrangement Plan at Elevation 117' 6"," Revision 10  
APP-1244-ER-102, "Auxiliary Building Area 4 Class 1E Conduit Arrangement Plan at Elevation 117' 6" Sections and Details (Sheet 1)," Revision 10  
APP-1244-ER-002, "Auxiliary Building Area 4 Class 1E Cable Tray Arrangement Plan at Elevation 117' 6"," Revision 7  
APP-1244-ER-003, "Auxiliary Building Area 4 Class 1E Cable Tray Layout at Elevation 117' 6" Sections and Details," Revision 6

Work Packages:

SV4-1224-ERW-1006524, "U4 - AUX - INSTALL 1E CONDUITS, EL. 82'-6", RM 12254, AREA 4," Revision 0  
SV4-1234-ERW-1118233, "U4 - AUX - Install 1E Scheduled Conduit - EL 100'0"- Rm 12251, 12254, 12256, 12354 - Area 4," Revision 2  
SV4-1234-ERW-1170773, "U4-AUX-REWORK/RELABEL CONDUITS, CABLE TRAYS AND SUPPORTS AS NEEDED TO CORRECT ISSUES WITH CRs 50161200 & 50161201, RM. 12254 & 12256, EL 100'-0", AREA 4," Revision 0  
SV4-1234-ERW-1170775, "U4 AUX, REWORK/REINSPECT TO RESOLVE ELECTRICAL ISSUES IN ROOM 12354 & 12365. CR 50161406 AND 50161410," Revision 0  
SV4-1244-ERW-1170921, "U4-AUX-INSTALL 1E CABLE TRAY COVERS AND ASSOCIATED HARDWARE, RM. 12452 & 12454 EL. 117'-6", AREA 4," Revision 0  
SV4-1244-ERW-1114546, "U4-AUX-INSTALL 1E CONDUITS AND PULL BOXES- EL 117'-6" - ROOM 12452, 12454 AREA 4," Revision 0

Procedures:

APP-G1-V8-001, "AP1000 Electrical Installation Specification," Revision 12  
Bechtel 26139-000-4MP-T81C-N3303, "Cable Installation," Revision 21  
Bechtel 26139-000-4MP-T81C-N3304, "Cable Terminations," Revision 19

Pull Tickets:

SV4-VFS-EW-PLV800AJYA[PT], "600V SAFETY DC MOV CONTROL CABLE PIGTAIL," Revision 1

Miscellaneous:

CR 50171620, Unit 4 Room 12452 has a Missing Screw in Condulet Cover identified during NRC Inspection, 3/21/2023  
SV4-1200-ITR-800802, "ITAAC Technical Report Unit 4 Electrical Report for ITAAC 796 and ITAAC 802, Radiologically Controlled Area of the Auxiliary Building," Revision 0

**Section 1A12**

APP-SES-Z0C-002, CAS & SAS Bullet Resistant Assessment, Revision 2

Documents Reviewed in Vogtle Units 3 & 4 Integrated Inspection Report 2019004:

SV4-1240-CR-913, "Auxiliary Building Areas [ ] Concrete Reinforcement Walls [ ] Sections & Details EL [ ]," Revision 6  
SV4-1200-CR-913, "Auxiliary Building Areas [ ] Concrete Reinforcement Walls [ ] Elevations," Revision 9  
SV4-CC01-Z0-031, "Safety Related Placing Concrete and Reinforcing Steel," Revision 8

Documents Reviewed in Vogtle Units 3 & 4 Integrated Inspection Report 2020003:

SV4-1250-CR-195-R3, "AUXILIARY BUILDING AREAS [ ] CONCRETE REINFORCEMENT FLOOR EL [ ] SECTIONS", Revision 4



SV4-EFS-GNR-000014, "Issue with sealant type used for penetration SV4-12401-ML-E104. (ESR 50171886)," Revision 0  
SV4-SES-ITR 800820, "MCR, CAS, SAS, Bullet-Resistant Summary Report," Revision 1  
WEC/Security Evaluation, dated March 16, 2023

#### **Section 1P01**

APP-GW-GAP-420, "Engineering and Design Coordination Reports," Revision 22  
APP-GW-GAP-428, "Nonconformance and Disposition Report," Revision 25  
ND-AD-002-027, "Nonconforming Items," Version 12.0  
ND-AD-002-028, "Corrective Action Program Instructions," Version 7.0

#### **Section 1P02**

##### Procedures:

APP-GW-GAP-420, "Engineering and Design Coordination Reports," Revision 22  
APP-GW-GAP-428, "Nonconformance and Disposition Report," Revision 23  
ND-AD-006, "Nuclear Development Cause Analysis," Version 17  
ND-AD-002-010, "Performance Improvement Metrics and Trending," Version 7  
ND-AD-002-027, "Nonconforming Items," Version 12.0  
ND-AD-002-028, "Corrective Action Program Instructions," Version 7.0  
ND-EN-VNP-024, "Engineering Service Requests," Version 7

##### Condition Reports:

CR 50166334, "NDQA Identified Report: Pipe Base metal damage"  
CR 50166774, "Bechtel QC Identified damaged pipe"  
CR 50167645, "Bechtel Mechanical QC Identified UNSAT Condition, IR No. M335-23-10982"  
CR 50169162, "N&D needed for Repair on Hydro tested Pipe"  
CR 50167211, "Freeze Seal Required to Prevent another Cold Hydro"  
CR 50167737, "Bechtel QC Identified UNSAT Condition Damage IR No. M335-23-10983 Pipe SV4-PXS-PLW-450 Arc Strike and Gouge observed"  
CR 50167896, "Piping Damage needs N&D for Repairs – UNSAT IR No. M335-23-10979 on previously hydro-tested pipe SV4-PXS-PLW-025-1"  
CR 50169431, "Pre-Repair Arc Strike on Support SV4-PXS-PH-11R0198 on IR M330-23-10648, WO No. SV4-PXS-PHW-1173566"  
CR 50167354, "Bechtel Mechanical QC Identified BMR UNSAT- Due to Below Min. Wall Thickness – SV4-RCS-PLW-35C-BMR-1"  
CR 50169073, "Bechtel QC Identified UNSAT Condition Mechanical pipe SV4-RCS-PLW-030 with Gouge"  
CR 50167713, "Two Freeze Seal Required to Prevent a Second Cold Hydro in Pipe SV4-PXS-PLW-302 and SV4-PXS-PLW-301"

##### Nonconformance & Disposition Reports:

SV4-RCS-GNR-000208, "AP-RCS-PLR-040\_HIR Clearance Issues SV4-RCS-PLW-043 (ESR 50159566) in three locations," Revision 0  
SV4-RCS-GNR-000245, "Indication on Piping of SV4-RCS-PLW-35C (ESR 50166337," Revision 0

SV4-PXS-GNR-000344, "Indication on Piping of SV4-PXS-PLW-053 (ESR 50167117)," Revision 0

Corrective Action Reports (CARs)

80008393, 800008471

Engineering & Design Coordination Report (E&DCR)

SV4-RCS-GEF-023, "Freeze Seal for Hydrostatic Testing of Repair for SV4-RCS-PLW-35C (ESR 50166914)," Revision 0

SV4-PXS-GEF-049, "Freeze Seal for Hydrostatic Testing of Defects for SV4-PXS-PLW-053 (ESR 50167556)," Revision 0

APP-RCS-GEF-850109, "APP-RCS-PLW-35C Weld Addition," Revision 0

Work Packages:

SV4-RCS-P0W-1173036, "ASME III Repair Piping ISO SV4-RCS-PLW-35C In Accordance with N&D SV4-RCS-GNR-000245," Revision 0

SV4-RCS-THW-1173037, "ASME III – Perform Hydrotest After Repair To Piping ISO SV4-RCS-PLW—35C Has Been Complete in Accordance with N&D SV4-RCS-GNR-000245," Revision 0;

SV4-RCS-P0W-1173044, "ASME III – Establish & Maintain Freeze Seal On ISO SV4-RCS-PLW-35D In Accordance with E&DCR SV4-RCS-GEF-023 To Facilitate Hydrotest After Repair to Piping ISO SV4-RCS-PLW-35C Has been Complete in Accordance with N&D SV4-RCS-GNR-000244," Revision 0;

SV4-PXS-P0W-1173097, "ASME III – Repair Indentation on Piping ISO SV4-PXS-PLW-053 In Accordance With N&D SV4-PXS-GNR-000344," Revision 0

SV4-PXS-P0W-1173272, "ASME III – Repair Surface Defects On Piping ISO SV4-PXS-PLW-770, In Accordance With N&D SV4-PXS-GNR-000342," Revision 0

SV4-PXS-P0W-1173411, "ASME III – Repair Surface Defects On Piping ISO SV4-PXS-PLW-450 In Accordance With N&D SV4-PXS-GNR-000349, Reference UNSAT IR M335-23-10983," Revision 0

SV4-PXS-P0W-1175410, "ASME III – Replace Damaged Pipe Spool SV4-PXS-PLW-530-2 Per UNSAT IR M335-23-10988," Revision 0

SV4-PXS-THW-1175420, "ASME III – Perform Hydrotest SV4-PXS-TH-H9135A On ISO SV4-PXS-PLW-530 After Repairs Complete. Reference UNSAT IR M335-23-10988," Revision 0

SV4-PXS-P0W-1173318, "ASME III – Establish & Maintain Freeze Seal on Piping ISO SV4-PXS-PLW-053 In Accordance with E&DCR SV4-PXS-GEF-049 To Support Hydrotest After Repairs Have been Completed In Accordance with N&D SV4-PXS-GNR-000344," Revision 0

Drawings:

SV4-RCS-PLW-080, "Reactor Coolant System Containment Building Room 11703 ADS Stage 1 Upper Tier," Revision 1

SV4-SGS-PLW-561, "Steam Generator System Containment Bldg. Rooms 1160111500/11403 SG01 To LT001 & LT011," Revision 0

SV4-RCS-PLW-030, "Reactor Coolant System Containment Bldg. Room 11302 ADS 4th Stage Discharge Line," Revision 0

SV4-RCS-PLW-35B, "Reactor Coolant System Containment Bldg. Room 11204, PZR Wide Range Level To LT-200' Revision 2

SV4-PXS-PLW-053, "Passive Core Cooling System Containment Building Room 11400 PXS Line From CMT-02A To Anchor," Revision 1

Miscellaneous Documents:

S&W Weld Data Sheet No. SV4-RCS-PLW-35C-BMR-1, Revision 0

S&W Weld Data Sheet No. SV4-RCS-PLW-35C-BMR-1, Revision 0

S&W Weld Data Sheet No. SV4-RCS-PH-11R0836-1-C, Revision 0

S&W Weld Data Sheet No. SV4-RCS-PH-11R0836-2-C, Revision 0

S&W Weld Data Sheet No. SV4-PXS-PLW-053-BMR-1, Revision 0

S&W Weld Data Sheet No. SV4-PXS-PLW-053-BMR-1, Revision 0

S&W Weld Data Sheet No. SV4-PXS-PLW-530-3-C Revision 0

S&W Weld Data Sheet No. SV4-PXS-PLW-530-4-C, Revision 0

S&W Weld Data Sheet No. SV4-PXS-PLW-450-10-RW-1, Revision 0

S&W Weld Map No. SV4-PXS-PLW-053- dated 2/8/2023

S&W Weld Map No. SV4-RCS-PLW-35C, dated 1/26/2023

S&W Weld Map No. SV4-PXS-PLW-053 dated 2/8/2023

Pressure Test Data Sheet Form SV4-RCS-TH-H9013A, "ASME III Hydrostatic Test of Lines SV4-RCS-PL-L229, T229," dated 2/18/2023

Pressure Test Data Sheet for SV4-PXS-TH-H9135A, "ASME III Hydrostatic Test of PXS Lines SV4-PXS-L0808, T0808," dated 3/16/2023

MISTRAS Ultrasonic Test Report (UTT) No. V-23-UT-303-0013, "SV4-PXS-PLW-053 Gouge," dated 2/3/2023

## LIST OF ACRONYMS

ADS	Automatic Depressurization System
ASME	American Society of Mechanical Engineers
CAP	Corrective Action Program
CAS	Central Alarm Station
CFR	Code of Federal Regulations
CMTR	Certified Material Test Report
COL	Combined License
CR	Condition Report
DC	Direct Current
E&DCR	Engineering and Design Coordination Report
I&C	Instrumentation and Control
IMC	Inspection Manual Chapter
IP	Inspection Procedures
ITAAC	Inspections, Tests, Analysis, and Inspection Criteria
MCR	Main Control Room
MSIV	Main Steam Isolation Valve
NRC	Nuclear Regulatory Commission
N&D	Nonconformance and Disposition Report
PCD	Principal Closure Document
PCS	Passive Containment Cooling System
PMS	Protection and Safety Monitoring System
PSS	Primary Sampling System
PXS	Passive Core Cooling System
QA	Quality Assurance
QC	Quality Control
RCS	Reactor Coolant System
SAS	Secondary Alarm Station
SFS	Spent Fuel Pool Cooling System
SNC	Southern Nuclear Company
SSC	Structure, System, and Component
S&W	Stone and Webster
UFSAR	Updated Final Safety Analysis Report
VEGP	Vogtle Electric Generating Plant
WDS	Weld Data Sheet
WEC	Westinghouse Electric Company
VFS	Containment Air Filtration System

### ITAAC INSPECTED

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analysis	Acceptance Criteria
12	2.1.02.01	1. The functional arrangement of the RCS is as described in the Design Description of this Section 2.1.2.	Inspection of the as-built system will be performed.	The as-built RCS conforms with the functional arrangement described in the Design Description of this Section 2.1.2.

120	2.2.02.02a	<p>2.a) The components identified in Table 2.2.2-1 as ASME Code Section III are designed and constructed in accordance with ASME Code Section III requirements. 2.b) The pipelines identified in Table 2.2.2-2 as ASME Code Section III are designed and constructed in accordance with ASME Code Section III requirements. 3.a) Pressure boundary welds in components identified in Table 2.2.2-1 as ASME Code Section III meet ASME Code Section III requirements. 3.b) Pressure boundary welds in the pipelines identified in Table 2.2.2-2 as ASME Code Section III meet ASME Code Section III requirements. 4.a) The components identified in Table 2.2.2-1 as ASME Code Section III retain their pressure boundary integrity at their design pressure. 4.b) The pipelines identified in Table 2.2.2-2 as ASME Code Section III retain their pressure boundary integrity at their design pressure. 5.b) Each of the pipelines identified in Table 2.2.2-2 for which functional</p>	<p>Inspection will be conducted of the as-built components and piping as documented in the ASME design reports. Inspection of the as-built pressure boundary welds will be performed in accordance with the ASME Code Section III. A hydrostatic test will be performed on the components and piping required by the ASME Code Section III to be hydrostatically tested. Inspection will be performed for the existence of a report concluding that the as-built pipelines meet the requirements for functional capability.</p>	<p>The ASME Code Section III design reports exist for the as-built components and piping identified in Table 2.2.2-1 and 2.2.2-2 as ASME Code Section III. A report exists and concludes that the ASME Code Section III requirements are met for non-destructive examination of pressure boundary welds. A report exists and concludes that the results of the hydrostatic test of the components and piping identified in Table 2.2.2-1 and 2.2.2-2 as ASME Code Section III conform with the requirements of the ASME Code Section III. A report exists and concludes that each of the as-built pipelines identified in Table 2.2.2-2 for which functional capability is required meets the requirements for functional capability.</p>
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No.	ITAAC No.	Design Commitment	Inspections, Tests, Analysis	Acceptance Criteria
		capability is required is designed to withstand combined normal and seismic design basis loads without a loss of its functional capability.		
761	3.3.00.02a.i.b	2.a) The nuclear island structures, including the critical sections listed in Table 3.3-7, are seismic Category I and are designed and constructed to withstand design basis loads as specified in the Design Description, without loss of structural integrity and the safety-related functions. 3.) Walls and floors of the nuclear island structures as defined on Table 3.3-1 except for designed openings or penetrations, provide shielding during normal operations.	i) An inspection of the nuclear island structures will be performed. Deviations from the design due to as-built conditions will be analyzed for the design basis loads, and for radiation shielding.	i.b) A report exists which reconciles deviations during construction, including Table 3.3-1 wall and floor thicknesses, and concludes that the as-built shield building structures, including the critical sections, conform to the approved design and will withstand the design basis loads specified in the Design Description without loss of structural integrity or the safety-related functions, and without impacting compliance with the radiation protection licensing basis.

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analysis	Acceptance Criteria
762	3.3.00.02a.i.c	<p>2.a) The nuclear island structures, including the critical sections listed in Table 3.3-7, are seismic Category I and are designed and constructed to withstand design basis loads as specified in the Design Description, without loss of structural integrity and the safety-related functions. 3.) Walls and floors of the nuclear island structures as defined on Table 3.3-1 except for designed openings or penetrations, provide shielding during normal operations.</p>	<p>i) An inspection of the nuclear island structures will be performed. Deviations from the design due to as-built conditions will be analyzed for the design basis loads, and for radiation shielding.</p>	<p>i.c) A report exists which reconciles deviations during construction, including Table 3.3-1 wall and floor thicknesses, and concludes that the as-built structures in the non-radiologically controlled area of the auxiliary building, including the critical sections, conform to the approved design and will withstand the design basis loads specified in the Design Description without loss of structural integrity or the safety-related functions, and without impacting compliance with the radiation protection licensing basis.</p>



No.	ITAAC No.	Design Commitment	Inspections, Tests, Analysis	Acceptance Criteria
763	3.3.00.02a.i.d	2.a) The nuclear island structures, including the critical sections listed in Table 3.3-7, are seismic Category I and are designed and constructed to withstand design basis loads as specified in the Design Description, without loss of structural integrity and the safety-related functions. 3.) Walls and floors of the nuclear island structures as defined on Table 3.3-1 except for designed openings or penetrations, provide shielding during normal operations.	i) An inspection of the nuclear island structures will be performed. Deviations from the design due to as-built conditions will be analyzed for the design basis loads, and for radiation shielding.	i.d) A report exists which reconciles deviations during construction, including Table 3.3-1 wall and floor thicknesses, and concludes that the as-built structures in the radiologically controlled area of the auxiliary building, including the critical sections, conform to the approved design and will withstand the design basis loads specified in the Design Description without loss of structural integrity or the safety-related functions, and without impacting compliance with the radiation protection licensing basis.
776	3.3.00.02h	2.h) The free volume in the containment allows for floodup to support long-term core cooling for postulated loss-of-coolant accidents.	An inspection will be performed of the as-built containment structures and equipment. The portions of the containment included in this inspection are the volumes that flood with a loss-of-coolant accident in passive core cooling system valve/equipment room B (11207). The in-containment refueling water storage tank volume is excluded from this inspection.	A report exists and concludes that the floodup volume of this portion of the containment is less than 71,960 ft <sup>3</sup> to an elevation of 107.68'.

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analysis	Acceptance Criteria
795	3.3.00.07c.i.a	7.c) Separation is maintained between Class 1E divisions in accordance with the fire areas as identified in Table 3.3-3.	i) Inspections of the as-built Class 1E division electrical cables, as-built communication cables associated with only one division, and the as-built raceways that route the Class 1E divisional electrical cables and communication cables located in the fire areas identified in Table 3.3-3 will be conducted.	i.a) Results of the inspection will confirm that the separation between Class 1E divisions in the non-radiologically controlled area of the auxiliary building is consistent with Table 3.3-3.
796	3.3.00.07c.i.b	7.c) Separation is maintained between Class 1E divisions in accordance with the fire areas as identified in Table 3.3-3.	i) Inspections of the as-built Class 1E division electrical cables, as-built communication cables associated with only one division, and the as-built raceways that route the Class 1E divisional electrical cables and communication cables located in the fire areas identified in Table 3.3-3 will be conducted.	i.b) Results of the inspection will confirm that the separation between Class 1E divisions in the radiologically controlled area of the auxiliary building is consistent with Table 3.3-3.
800	3.3.00.07d.ii.a	7.d) Physical separation is maintained between Class 1E divisions and between Class 1E divisions and non-Class 1E cables.	Refer to Unit 4 COL for electrical separation ITAAC consolidation	Refer to Unit 4 COL for electrical separation ITAAC consolidation
801	3.3.00.07d.ii.b	7.d) Physical separation is maintained between Class 1E divisions and between Class 1E divisions and non-Class 1E cables.	Refer to Unit 4 COL for electrical separation ITAAC consolidation	Refer to Unit 4 COL for electrical separation ITAAC consolidation

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analysis	Acceptance Criteria
802	3.3.00.07d.ii.c	7.d) Physical separation is maintained between Class 1E divisions and between Class 1E divisions and non-Class 1E cables.	Refer to Unit 4 COL for electrical separation ITAAC consolidation	Refer to Unit 4 COL for electrical separation ITAAC consolidation
820	3.3.00.14	14. The external walls, doors, ceiling, and floors in the main control room, the central alarm station, and the secondary alarm station are bullet-resistant to at least Underwriters Laboratory Ballistic Standard 752, level 4. 15. Deleted	Type test, analysis, or a combination of type test and analysis will be performed for the external walls, doors, ceilings, and floors in the main control room, the central alarm station, and the secondary alarm station.	A report exists and concludes that the external walls, doors, ceilings, and floors in the main control room, the central alarm station, and the secondary alarm station are bullet-resistant to at least Underwriters Laboratory Ballistic Standard 752, level 4.